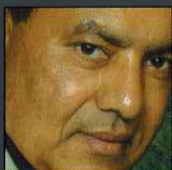


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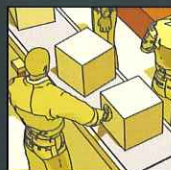


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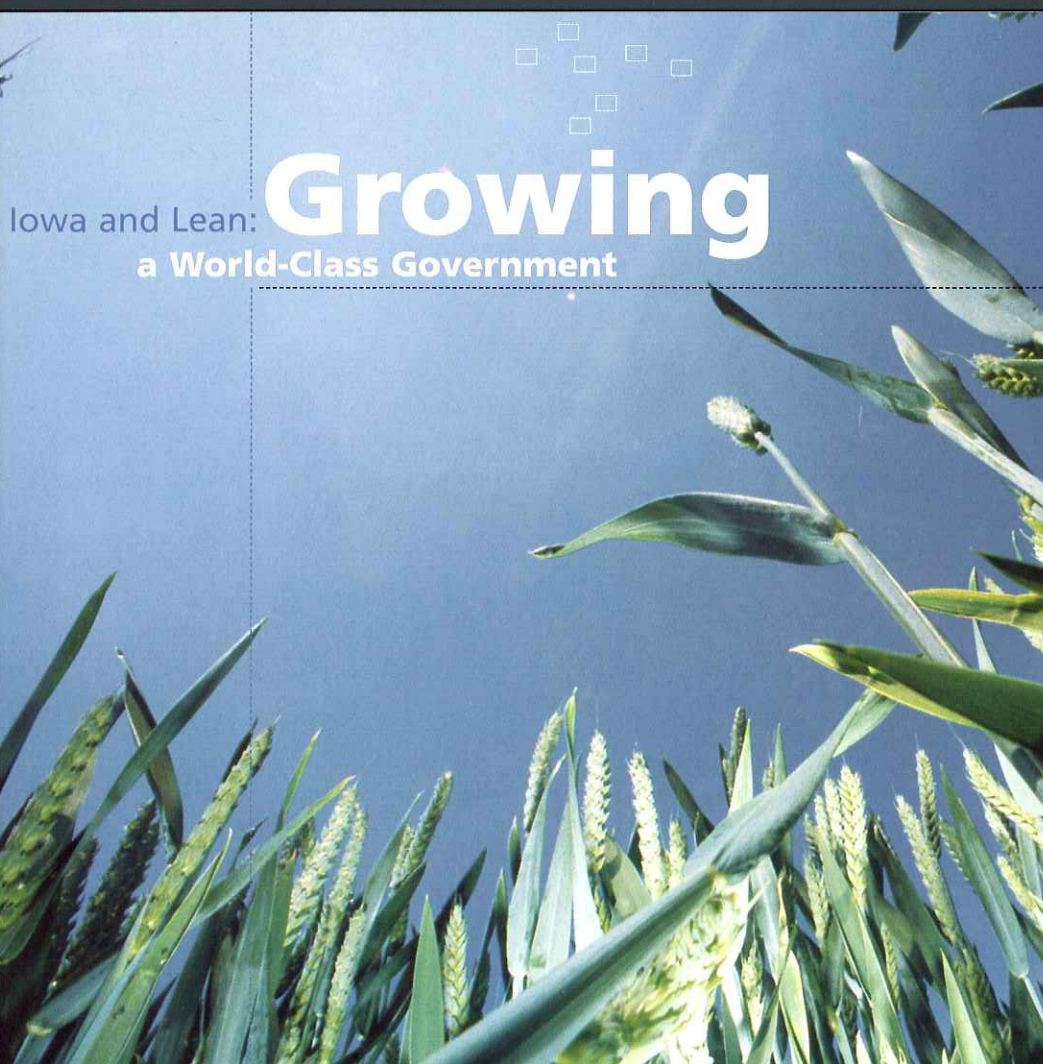
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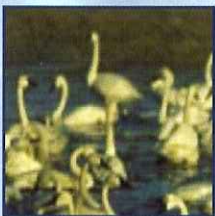
Iowa and Lean: **Growing**
a World-Class Government



Growing

a World-Class Government

By Teresa Hay McMahon, Iowa Department of Natural Resources



Iowa's Department of Natural Resources (DNR) follows a grand vision: "Leading Iowans in Caring for Our Natural Resources." DNR came into being just two decades ago—a marriage of five agencies, including the geological survey; the Iowa Conservation Commission; the Department of Water, Air, and Waste Management; and the Energy Policy Council.

DNR consists of two operating divisions and one support division. The largest division is conservation and recreation, which is responsible for resource protection and management, among other activities. The Environmental Services Division is responsible for permitting, water monitoring, brown-field reclamation, energy issues, and field services, which includes inspection.

DNR's annual budget is \$127 million and includes 300 different revenue streams. DNR also partners with a number of federal agencies, states, and local governments. It's a big entity involved in a lot of projects, and that creates a lot of paperwork and other red tape. In many ways, a government entity like DNR is quite similar to a corporate entity, with parallels in structure, function, and dysfunction, for that matter.

In 2001, Iowa passed legislation called the Accountable Government Act. This Act institutionalized strategic planning, annual performance planning, performance measurement, results-based budgeting, performance reporting and audits, and return on investment for all government agencies. A new department director, the equivalent of a CEO, and deputy director (COO) were appointed for DNR.

The following year, DNR instituted the Baldrige Criteria for Performance Excellence to measure performance. The performance measures included leadership; strategic planning; customer, market, and human resource focus; information and analysis; process management; and business results. Our first assessment was absolutely gruesome, but we learned a lot about ourselves in the process.

In 2003, we reached several milestones in our quest for accountable government. We conducted our first department-wide employee survey to measure employee engagement and the strength of our workforce. DNR also became a charter agency, a designation that was meant to encourage an entrepreneurial mindset and to provide the department with flexibility in exchange for a budget cut and revenue generation.

A Leap of Faith

Probably the biggest milestone that occurred in 2003 was our first business process kaizen (BPK). This is the event that was the turning point for DNR. The Iowa Coalition for Innovation and Growth (ICIG), which proposed a public-private partnership, offered TBM as the facilitator for the BPK. This was seen as a win-win situation for DNR, as we would gain the benefit of TBM's services while at the same time hopefully resolving some of the issues with our permitting processes that were creating frustration among the business community. We decided to focus on air quality permits: DNR issues 2,000 such permits each year and our lead time was 62 days. At that time, 62 days was one of the shortest lead times in the country, so many employees couldn't see the problem, and instead they feared the BPK was a way to cut staff. There was also a general fear that the changes to processes would ultimately result in shortchanging environmental quality.

But we forged ahead and achieved amazing results. Lead time was reduced to 12 days, process steps were cut by 70 percent, hand-offs were reduced from 18 to four, and the 600-permit backlog was eliminated within six months. We made the process more customer-friendly, even installing an 800 number for customer questions.

Upon reviewing the process, we found that the biggest bottleneck was missing information on the permit application. To our amazement we also discovered that the actual time required for an engineer to review the permit was one day!

We learned some important lessons from that first event. We found that we could improve customer service without sacrificing the environment. We also learned that we could sustain the process and even continue to improve on it—ultimately cutting the permitting process to just six days. And finally we learned that change can indeed happen in just one week.

But that was just the first baby step in a long journey of process improvement, and we needed to make a commitment that this was going to be a permanent change for the entire department. After that first great success, ICIG asked if DNR would continue with more BPKs. Pella, which has had great success with its own lean journey, promised to help, and with that DNR took the plunge and said yes to ICIG.

As we headed into 2004, we had to decide where to begin, and that meant establishing some criteria for prioritizing projects. Greater weight was given to those areas with funding concerns, customer service complaints, productivity problems, high volume, or criticality to DNR's mission. Of course we also planned to pluck the low-hanging fruit from the start, and most of this was to be found on the environmental side of the agency.

One of our first steps was defining who would do what, including whether experience or action should be a major selector. We decided that to recruit change agents, we needed a strict focus on attitude, realizing that you can't force a person to believe a certain way but you can teach skills to a believer. We also had to learn a new language, the language of kaizen, making sure we understood terms like value added, takt time, and cycle time.

As those who have gone before us know, there is a distinct learning curve to be scaled when leaning an organization. From the very beginning we decided to bring external stakeholders to the table. Both the external stakeholders and DNR staff exhibited a range of attitudes—from completely skeptical to downright hostile. Some of the participants were also consultants who were giving up income to join a kaizen event.



We were careful to pick the right people to be team members. You must recognize that not all leaders wear that label, and you can't buy the type of persuasion that comes from the real leaders. For example, one of our real leaders was a biologist who had become a convert to lean. Although this person was not in a leadership position, he was well respected by his colleagues and so his opinion carried great weight, going a long way toward encouraging others to join the journey.

We also had to come to terms with standard processes. We thought we knew what we were doing in our processes, but the truth is that there was no standard practice that everyone followed, and of course that lack of standardization simply added to the waste.

What Do We Want?

When looking at reasons for making the commitment to embark on a lean journey and improve our operations, it was necessary to examine DNR's original reason for existing. We had certain policies in place, but those policies had been handed down over time from person to person—nothing was written down to explain why certain procedures and policies were followed. In fact, it seemed that often the reason many processes became entrenched was simply because it was the easiest way out!

We also recognized that we spent a lot of time reacting to the 5 percent of our customers who were bad actors and noncompliers, and then forcing the remaining, compliant 95 percent to jump through the same hoops as that 5 percent. Once we realized that streamlining the processes for the 95 percent could free up our resources to concentrate on the 5 percent of bad actors and coach them into compliance, it made perfect sense to do so.



Perhaps one of the most important questions we had to ask ourselves was "Did we forget someone along the way?" In our zeal to perform our tasks and protect the environment we had forgotten our customers, who are not only the general public but also the people and businesses who came to us for various permits and other regulatory issues.

Unveiling the Mystery

We also had to make sure that we didn't forget the other stakeholders in DNR—its employees. To gain acceptance for lean and kaizen at DNR we established a "no closed doors" policy. This helped to dissolve suspicion by including everyone in the process. We always invited all relevant staff to pre-event meetings. By letting everyone know what was going on, we could dissolve fear of the unknown. Education was the second prong of our strategy—training and inclusiveness demystifies the process for everyone.

Different aspects of the lean transformation presented unique challenges. For example, people claimed that they lacked time for 5S, and they often forgot to circle back and complete those tasks later. Overcoming people's protectiveness of their office space—the one place over which they had complete control—was also a challenge. In our business process setting, generally safety is not a big issue, so to emphasize the importance of 5S, we converted our QCDS boards to QCD(5)S boards.

The typical wastes you find in a business process setting differ from those you might find on a shop floor or engineering office. Overproduction is essentially creating unneeded reports. Waiting is the time that's lost during the approval cycle. Moving items pertains to report routing. Over processing includes obsolete data that is contained on shared drives. Inventory and unnecessary motion includes stocking up on supplies and the movements required for reaching supplies. Defects are data errors.

Beyond the Numbers

That's how we entered the kaizen process in 2004. We ended up holding six BPK events at DNR and one at another agency. Highlights from those events include cutting the lead time at the clean water state revolving fund from 28 months to 4.5 months, cutting the lead time for landfill permitting from 187 days to 30 days, and cutting wastewater/discharge permitting lead time from 425 days to 15 days.

But the benefits of the BPK events held in 2004 went beyond just the numbers presented here. By freeing up staff time for site visits we were able to focus on mission-critical activities instead of just moving paper. More important, the impact leaning had on Iowa's regulatory climate had a direct effect on the state's economic competitiveness. Improving our turnaround times for regulatory processes and approvals enhanced our competitiveness with respect to attracting additional business to the state.

**Dept of Human Services - Interstate Compact for the Placement of Children
BPK Results (April 2006)**

	OLD	NEW	% CHANGE
Steps	82	34	58.5%
Handoffs	23	10	56.5%
Decisions	12	2	83%
Loopbacks	11	1	99%
Delays	14	3	79%
Delays (Days, Best Case)	127	85	33%
Delays (Days, Worst Case)	562	240	57%
% of Value-added steps	2.4%	6%	40%

Dept of Public Safety - Peace Officer Application Process BPK Results (May 2006)

	OLD	NEW	% CHANGE
Leadtime (Days, Best Case)	99 (30 min)	44 (30 min)	55%
Leadtime (Days, Worst Case)	398	143	64%
Steps	128	76	41%
Handoffs	29	14	52%
Decisions	15	11	27%
Loopbacks	2	0	100%
Delays	15	6	60%
Delays (Days, Best Case)	83	11	86%
Delays (Days, Worst Case)	257	115	55%

Back to the Future

An important aspect of the lean journey is culture change. Culture change doesn't happen overnight—we expect it will take at least a decade before the lean culture is firmly entrenched at DNR. To promote culture change we kick off all events with our deputy director. The deputy director's presence lends credence to the process and reinforces the department's top-down commitment to lean.

We actively drive change. Change management and leadership training raise the performance bar for everyone. Another important aspect of accelerating culture change is communication. We make a serious and sustained effort to get the message out to all staff, focusing on early adapters. Remember that nothing speaks louder than results.

Early attitudes centered on "What's new about doing more with less?" Many staffers figured lean was just a new twist on an old mantra. We had to do a lot of education to show that lean really is a *different* way of doing more with less. We showed staff that lean is actually a tool, and once they began to use the tool they began to understand its value.

We had to re-educate ourselves that the environment wasn't our only customer, that our customers were also the people seeking permits and the state taxpayers, and we had to provide the best service to all of them.

By late summer 2005, we had conducted 14 BPK events, and more important, we had gotten more state agencies involved, in the areas of economic development, public safety, human services,

corrections, veteran's affairs, and public health.

Kaizen events spread like a prairie burn—they started in the DNR corner and flamed rapidly from there.

Again in 2005 we achieved great results with our kaizen events. Our manure management division gained 80–93 percent improvements in lead times. At the veteran's home, a 68 percent improvement in medication administration delays was achieved. In corrections, we focused on offender re-entry into society, using kaizen methodology to determine the best way to prepare people to transition from incarceration into society.

Results can't be argued with, and the results we achieved gained the notice of other agencies in Iowa as well as other state governments.

Pulse Check

Three years after starting our lean transformation, we decided to revisit the Baldrige performance measures. We saw the second assessment as a means of documenting three years of change and a bridge for preparing for another leap forward. To assess culture change, we used employee surveys. The results showed that culture change was indeed happening—there was an uptick in attitude and a drop in comments on poor morale.



Overcoming history is not an easy task. A lot of cynicism existed because of previous “flavor-of-the-month” initiatives that just didn’t work. Cynicism runs deep, and we found that we had to not only look at trimming the branches, but also taking down the whole tree and grubbing out the roots.

Wiping out cynicism meant changing the expectations of DNR’s staff and its customers. For the staff, we had to change their “whip smart” mindset, fear of layoffs, and the fear that change meant less stringent environmental protection. We had to prove to our customers that we were not an agency that “could do nothing right.” A big part of changing a mindset involves communication. Communicating with staff and customers doesn’t have to be lengthy or involved, it just needs to be frequent and consistent. That consistency, along with doing what we said we were going to do, was a major driver in changing expectations.

Toeing the Line

Follow-up is what allows us to continue moving forward. An important component of follow-up is keeping track of the metrics. Backsliding is never obvious when you rely only on observation, but the numbers won’t lie. We also religiously complete the homework. It takes a lot to get the ship of state to turn, and we typically don’t see numerical results for 90 days. To help with sustainment, we also post charts and results so that everyone can see them. Attitudes change when staff can see verifiable accomplishments.

But all isn’t always rosy. What happens when you crash and burn? We have to understand that lean is not a silver bullet. Sometimes there’s a people problem that lean can’t solve. When we had an event for which we didn’t have a report out, we went back to the area and explained to everyone what happened and where we were going from there. In other words, we faced the problem head on, acknowledged the failure, and outlined the steps we planned to take to move forward.

A Living Organism

DNR embarked on its lean journey without a budget for those activities. Pella has been our guardian angel, taking DNR people on its events

and helping DNR with our own events. The lean transformation at DNR has been organic—we didn’t do a lot of planning beforehand, but just stepped in and started, and grew and evolved as we went.

Essentially we are reinventing how we conduct business. By concentrating on culture change from the start we have prepared ourselves to be ready for the long haul. State budgets being what they are, we have not used reward per se as a motivator, but we have found that recognition works just as well.

Just as with a business, though, leadership changes. In Iowa, we have had a very supportive governor, but he won’t run again when his term ends this year. So we need to have a critical mass or capacity for lean that reaches beyond DNR into many levels of state government. Being able to show a new administration the value of a lean transformation will aid in keeping the movement alive after the current administration ends.

Since September 2005, I have been on loan to the Department of Management. Because DNR had the most experience with lean and lean culture change, I was asked to help get lean out to other executive branch agencies. There has been a concentrated effort to take this to more agencies and get repeat events in those agencies to garner interest and show people that this can work everywhere and not just DNR. And it’s gone very well to date, with a total of 43 events in the executive branch, in 14 different agencies.

Acceptance of lean has continued to vary. For example, one agency gave us something of a polite brush off, citing examples of their own efforts at improving efficiency over the past few years. But a few months later they called because there was some legislative concern over the costs of running that operation and they realized that their efforts hadn’t been enough. So in that case legislative pressure was the catalyst, but when we went in, we had an extremely successful event and they were very happy with the results and are planning their second event.

We had another agency for which the first event wasn’t overwhelmingly successful in that the results didn’t really grab people. We got back in for a second event and this time everything clicked and



now they have three more events scheduled. So sometimes even when we've made that first foray, it's taken a second event for lean really to gain a toehold at an agency. Part of this is because of size differences—it's easier to get the word out and show results in a small division of 30 people than it is for a large agency like Human Services where there are 5,300 people scattered all over the state.

One really stand-out event was held in Human Services in April. The event dealt with the Interstate Compact for the Placement of Children. This is a very big thing, because a child has been removed from the home and is staying in a foster home, for example, but has a relative that lives across the state line. This is the process you have to go through for the child to be able to leave the state. After the kaizen event, the process went from 82 steps to 34, from 12 decisions to two, from 11 loopbacks to one, and from 23 hand-offs to 10. The number of delays in the process dropped from 14 to three. The number of value-added steps rose from 2.4 percent to 6 percent. In best-case situations, the delays went from 127 days to 85 days, and in the worst-case situations delays dropped from 562 days to 240 days. This equates with an improvement of 57 percent on the worst-case delays. The end result is that children are being placed with family members or other close relatives much more quickly. The children are the bottom-line customer in this instance, and making such dramatic improvements in the process was a great victory for the Human Services employees and the children in need.

Looking Ahead

Recently we had really great news about the future of lean and kaizen in the State of Iowa. The business community worked with us last fall and through the spring legislative session to show the legislature why lean is a good thing and how it helped them in their own companies and why the state should be doing this. As a result, we were able to obtain an appropriation for one full-time position in the Department of Management. This means the job I've been doing since last fall will become a full-time position.

The Department of Management is the governor's budgeting and planning agency, so this is quite a victory for ensuring the continuation of our lean efforts. The legislature recognized the value of putting some money into leaning government. This

is one way of sustaining the program no matter what party holds the governorship, although with so many good results it would be very hard for a new administration to argue against it. Added to that is the support of the private sector, which is in many ways an objective third party. It's not about being a Republican or a Democrat—it's just about being efficient and effective and providing good value. The business community, which has benefited greatly from the lean efforts in DNR and other agencies, has become and will continue to be an advocate for and driver of continued change.

Other states are also beginning to recognize the value of lean. I think the one thing that's different about Iowa is that we've really spread it to the executive branch, which would be the equivalent of the corporate leadership of a business. Many other states are doing it on a more limited scale, within specific departments and agencies. I have not yet heard of any state that has tried to move this to the executive branch as a whole the way Iowa has. Obviously we have an advantage of being a state of 3 million people, with an executive branch of 18,000–20,000 employees, and so it is a bit easier here than it would be for a much larger state, but it's all just a matter of scale. There are certainly large corporations with thousands of employees all over the world who implement lean, so it can be done—it's just a little more logistically complicated.

Getting this full-time position, essentially the state's kaizen promotion officer, was critical, and now we have to be smart about how we deploy. We've been in this initial stage of doing things here and there to get good results, and now we have to really target our limited resources to focus on those areas where we can have the greatest impact. This will build a solid foundation so that five years from now we have a strong, living, permanent effort in place. The whole mantra is that lean isn't a destination, it's a journey, and we're working to gain the depth and breadth throughout the government so that lean will stay on course no matter what.

In the end we are working for a world-class government, and our success will be reflected in a better economic competitiveness for Iowa and ultimately the best governed state in this country. ■

